Multiple sequence alignment of five AChE sequences, three BuChE sequences and the human amyloid precursor polypeptide at the region of interest

λH KNH N N N X N z × ø 0 3 WONMANSW 3 3 H A A H Ω WNNYMNA GYEVH Z E RWNNY R W S R H D 24 Ξ Ξ E E KAGF 臼 Ö ပ ~ K M D'A > M K 回 Ĺij MTGD MTG Rab AchE Hum AchE Mus AChE Rat AChE Bov AchE Hum BChE Rab BChE BChE Hum Amy1 Hum AChE Mus

A I I G L M V G G V V I X ੰX B ∶Q ø X X × × × × Rab AchE Mus AChE Rat AChE Bov AChE Hum BChE Rab BChE Mus BChE Hum Amyl

The polypeptide sequences are :-

Humbche = human BuChE; Rabbche = rabbit BuChE; Musbche = mouse BuChE; Hum Amyl = human A4 amyloid precursor polypeptide Humache = Human AChE; Rabache = rabbit AChE; Musache = mouse AChE; Ratache = rat AChE; Bovache = bovine AChE;

Residues in bold are conserved across all sequences; boxed residues are shared by all AChEs and A4, but by none of the BuChEs The amyloid peptide 1-42 is shown as a light grey box

The bar above the alignment shows the position of the AChE and BuChE synthetic peptides; the bar below the alignment the synthetic APP peptide